

DRAWING CORRECTIONS

Applicants thank the Examiner for the approval of the substitute sheets of drawings filed on March 7, 2002.

REJECTION UNDER 35 USC §112, FIRST PARAGRAPH

Claims 23-44 stand rejected under 35 USC §112, first paragraph. This rejection is respectfully traversed.

The Examiner objects to the recitation in the claims that the audio data includes "at least more than one audio channel." The Examiner states that the disclosure provides support for the first and second types of audio data, but not more than one audio channel. Further, the Examiner states that the "admitted prior art on page 3 of the specification includes a reference to a stereo music program and a special music program each having two channels, but there is no nexus made in the specification as to this admitted prior art relative to Applicant's invention." Applicants respectfully disagree with the Examiner's interpretation of the specification of the present invention. Applicant's contend that the specification, as originally filed, does provide adequate support for stereo music (e.g. two audio channels) per type of audio data.

As the Examiner correctly notes, page 3 of the specification describes a karaoke CD format which includes a "stereo" music program and a special music program. However, on page 4 of the specification, a drawback of the conventional karaoke CD format is discussed. Namely, the conventional karaoke CD has the disadvantage of being unable to obtain "stereophony" sound in the case of the special music program (wherein one channel includes music without vocal accompaniment and the other channel includes music with vocal accompaniment).

It is important to note that this is the only disadvantage or drawback discussed in connection with the conventional art. Hence, it is important to note that one of ordinary skill in the art, having read Applicant's description of the related art would have understood that this is "the" disadvantage to be addressed by the present invention. Further, one of ordinary skill in the art, having reviewed Figure 3 illustrating the prior art and Figure 5 illustrating the present invention would have realized that the karaoke CD format of the present invention includes additional audio data, as compared to the prior art. This additional audio data relates to overcoming the disadvantage of the background art as specifically stated in the specification. Namely, the background art included "mono" without vocal and "mono" with vocal as the special music program. See page 3, lines 17-19. Thus, the prior art was unable to obtain stereophony sound in the special music program. See page 4, lines 15-19.

Figures 3 and 5 illustrate that the present invention provides additional audio data to cure this deficiency in the prior art. Further, the specification at page 7, lines 13-15 specifically state that an increased buffer size is required by the present invention due to the new audio sectors Aa and Ab. Therefore, one of ordinary skill in the art would have understood that newly added audio data is included in the present invention in order to overcome the disadvantage of being unable to obtain stereophony sound in the special music program. Such a description would have indicated to one of ordinary skill in the art that the present invention concerned stereo reproduction in the special music program.

Lastly, it is directly stated in the "Detailed Description of the Invention" that the present invention provides for "stereophony sound" in the special music program. Page 12, lines 1-5 directly state:

As has been explained, this invention for a karaoke CD system increases the enjoyment of karaoke by reproducing audio data containing a player's voice, i.e.,

playing sound and accompaniment sound, and audio data containing accompaniment sound selectively, which permits stereophony sound corresponding to the CD sound. (emphasis added)

As the above paragraph of the Detailed Description of the Invention directly states, the present invention allows the special music program (which includes music with vocal accompaniment and music without vocal accompaniment) to be in stereophony sound, just like, or corresponding to, the CD sound of the "stereo music program," as illustrated in Table 1 on page 3 of the specification.

For the reasons as stated above, it is respectfully submitted that one of ordinary skill in the art, having read the application as originally filed, would have understood that the present invention concerned obtaining stereophony sound for the audio data of the first and second types.

Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

REJECTION UNDER 35 USC §102(e)

Claims 23-44 stand rejected under 35 USC §102(e) as being anticipated by Fujinami. This rejection is respectfully traversed.

Independent claims 23, 28, 31 and 38 recite respective combinations of structural features constituting a device for reproducing a digital signal, or methods for processing a digital signal. The digital signal is composed of data units, and each data unit includes information both indicating a "coding mode" and identifying the audio signal represented by the data unit, and at least "more than one audio channel."

Fijinumi fails to anticipate the combinations of Applicants' independent claims in that Fujinumi makes no mention of a coding mode, or an ability to specify the coding mode in the coding information associated with each unit of the digital audio data. Fujinami does provide

information to identify the audio signal represented by the data unit (e.g. center channel), however this information does not specify a "coding mode" for the data unit. In Fujinami, it would be assumed that the coding mode is always the same for each optical disc played. In the present invention, by specifying the coding mode in the audio data unit, the coding mode can be changed or modified for individual mediums. Therefore, the coding mode can be readily read and understood by the audio processing device.

Further, Fujinami fails to anticipate each data unit having at least "more than one audio channel." Fujinami is in accordance with Applicant's admitted prior art, in that Fujinami shows mono sound for the special music program. For example, see Fujinami's Figure 10 where the stereo accompaniment includes two audio channels (0, 1), but the vocal accompaniment includes only a single or mono channel (Guide 2). Therefore, Fujinami operates in a manner consistent with Table 1 on page 3 of Applicant's specification, which describes the background art. Specifically, a stereo music program is provided (channels 0 and 1). However, when it comes to the special music program, only mono sound is available (audio channel 2). Therefore, Fujinami fails to show or suggest at least "more than one audio channel" for each data unit.

For the reasons as stated above, reconsideration and withdrawal of this rejection are respectfully requested.

REJECTION UNDER 35 USC §103(a)

Claims 23-44 stand rejected under 35 USC §103(a) as being unpatentable over Applicant's admitted prior art in view of Fujinami. This rejection is respectfully traversed.

Applicants' admitted prior art fails to disclose coding mode information associated with each unit of the digital audio data, as recited by Applicants' independent claims. Further,

Applicants' admitted prior art fails to disclose each data unit including more than one audio channel. Indeed, the absence of more than one audio channel in the prior art is specifically noted as a drawback of the admitted prior art to be addressed by the present invention.

As discussed under the heading of "Rejection under 35 USC §102(e)," above, Fujinami fails to show or suggest each data unit including "coding mode" information and "more than one audio channel." Therefore, Fujinami fails to cure the deficiencies of Applicants' admitted prior art.

On page 4, lines 13-15 of the last Office Action, the Examiner correctly notes that Fujinami's data units include identifying information to distinguish them as accompaniment L / accompaniment R / guide / model / comments / background / center / back / speech. This is relevant to the identification information set forth in each of Applicants' independent claims. However, Applicants cannot agree that this identification information of Fijinami has the dual role of specifying the "coding mode" of the data units, as also set forth in each of Applicants' independent claims. The Examiner states that the coding mode is "stereo (0,1) or mono (2, 3, 4, 5)." These are not coding modes. "0" refers to the "identity" of the data unit as "accompaniment L," "1" refers to the identity of the data unit as "accompaniment R," etc. The data could be encoded by an MPEG coding mode or any other coding mode. Its identity as a center channel or an accompaniment L channel has nothing to do with the encoding methodology employed.

Fijinami simply fails to provide coding mode information for each of the data units "as part of the digital audio data." In Fijinami, a player would be set-up to play mediums (e.g. CD's) having a certain coding mode. There is no mention in Fijinami that the actual data units would include coding mode information to be read by the player, so that the player could identify the coding mode of the data units.

For the reasons as stated above, reconsideration and withdrawal of this rejection are respectfully requested.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn.

It is believed that a full and complete response has been made to the Office Action, and as such, the present application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mr. Scott L. Lowe (Reg. No. 41,458) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Applicants respectfully petition under the provisions of 37 C.F.R. § 1.136(a) and 1.17 for a three month extension of time in which to respond to the Examiner's Office Action. The Extension of Time Fee in the amount of \$920.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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